

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. (Currently Amended) A drug delivery device comprising:
a catheter or syringe having a distal portion,
a needle attached to the distal portion, the needle comprising:
a shaft having a distal end defining a distal opening and having a longitudinal axis extending through the distal opening, the distal opening having a projected area that is smaller than a cross-sectional area of a section of the shaft proximal to the distal end of the shaft,
wherein the distal-most end is a curvilinear ~~non-pointed~~ blunt tip.
2. (Previously Presented) The needle of claim 1, wherein the distal end comprises opposing first and second surfaces and the first surface is indented towards the second surface.
3. (Original) The needle of claim 1, wherein the distal end of the shaft comprises at least one port on a side surface thereof.
4. (Canceled)
5. (Original) The needle of claim 1, wherein the distal end of the shaft is tapered.
6. (Original) The needle of claim 1, wherein the distal end comprises opposing first and second extensions, the first and the second extensions being angled towards each other.
7. (Original) The needle of claim 6, wherein the second extension is longer than the first extension in a direction parallel to the longitudinal axis of the shaft.
8. (Original) The needle of claim 6, wherein the first and second extensions mutually define at least one opening offset from the longitudinal axis of the shaft.

9. (Original) The needle of claim 8, wherein the at least one opening is a pair of openings, each opening being offset from the longitudinal axis of the shaft.

10. (Original) The needle of claim 6, wherein the first and the second extensions each terminate in beveled distal tips.

11. (Cancelled)

12. (Cancelled)

13. (Currently amended) A method of delivering a therapeutic agent to a target site of a body comprising:

providing a the drug delivery device of claim 1 containing a therapeutic agent ~~and comprising the needle of claim 1 at a distal portion thereof~~; and

delivering the therapeutic agent through the needle to a target site of a body.

14. (Cancelled)

15. (Original) The method of claim 13, wherein the target site is selected from a group consisting of the heart, lung, brain, liver, skeletal muscle, smooth muscle, kidney, bladder, intestines, stomach, pancreas, ovary, prostate and cartilage.

16. (Original) The method of claim 13, wherein delivering the therapeutic agent comprises directly delivering the therapeutic agent to the target site.

17. (Currently amended) A method of accessing a drug delivery port comprising:

providing a the drug delivery device ~~comprising the needle of claim 1 at a distal portion thereof~~; and

inserting the needle of the drug delivery device into a drug delivery port to access the drug delivery port.

18. (Currently amended) The method of claim 17, wherein accessing the drug delivery port comprises comprising introducing a therapeutic agent through the needle into the drug delivery port.

19. (Cancelled)

20. (Original) The method of claim 17, wherein the drug delivery port comprises a septum, the needle of the drug delivery device piercing the septum to access the drug delivery port.

21. (Currently amended) A method of delivering a therapeutic agent to a spinal column comprising:

providing a the drug delivery device of claim 1 containing a therapeutic agent and comprising the needle of claim 1 at a distal portion thereof; and

introducing the therapeutic agent through the needle into a spinal column.

22. (Currently amended) A method of collecting a fluid sample from a body comprising:

providing a the drug delivery device ~~comprising the needle of claim 1 at a distal portion thereof~~;

inserting the needle into a fluid containment site of a body; and

creating a vacuum in the drug delivery device to collect a fluid sample from the fluid containment site of the body.

23. (Original) The method of claim 22, wherein the fluid sample comprises blood, amniotic fluid, serous fluid, or cerebrospinal fluid.

24-31. (Canceled)

32. (Previously presented) The needle of claim 2, wherein the distal opening is a U-shape.

33. (Previously presented) The needle of claim 2, wherein the second surface is parallel to the longitudinal axis of the shaft.

34. (Currently amended) A drug delivery device comprising:

a catheter or syringe having a distal portion,

a needle attached to the distal portion, the needle comprising:

a shaft having a tapered distal end comprising a first surface indented towards a second surface to define a distal opening having a U-shape when viewed from the distal end, the shaft having a longitudinal axis extending through the distal opening, the distal opening having a projected area that is smaller than a cross-sectional area of a section of the shaft proximal to the distal end of the shaft.

35. (Previously presented) The needle of claim 34, wherein the distal opening is closed along a portion thereof.

36. (Currently amended) A drug delivery device comprising:

a catheter or syringe having a distal portion,

a needle attached to the distal portion, the needle comprising:

a shaft having a tapered distal end defining a distal opening and having a longitudinal axis extending through the distal opening, the distal end comprising a first surface only indented towards a second surface, the second surface being parallel to the longitudinal axis of the shaft, the distal opening having a projected area that is smaller than a cross-sectional area of a section of the shaft proximal to the distal end of the shaft.

37. (Currently amended) A drug delivery device comprising:

a catheter or syringe having a distal portion,

a needle attached to the distal portion, the needle comprising:

a shaft having a tapered distal end comprising a first surface indented towards a second surface at an angle α and the second surface being indented towards the first surface at an angle

β , wherein the angle α is equal to the angle β , the distal end defining an opening and having a longitudinal axis extending through the distal opening, the distal opening having a projected area that is smaller than a cross-sectional area of a section of the shaft proximal to the distal end of the shaft.

38. (Previously presented) The needle of claim 37, wherein the distal opening has an hourglass shape centered on the longitudinal axis, when viewed from the distal end.